SYNOPSIS OF THE DIPTEROUS genus SYMPHOROMYIA,

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The first representatives of this genus in North America were described in October, 1886; in that month Dr. Williston published descriptions of two new species in the Transactions Am. Ent. Society, Vol. XIII, page 287. In the following year, the late M. Bigot, of France, published descriptions of what purported to be six new species (Bulletin Soc. Ent. de France, 1887, pages 12 to 15), each founded on a single specimen; in a note, however, he acknowledges that his picticornis and trivittata are synonyms of of Williston's plagens and pachyceras respectively. A careful study of his descriptions indicates that atripes and comata refer to one and the same species, and that this is but the female of pachyceras Will.; fulvipes appears to be but the other sex of latipalpis. This reduces his six names to one — latipalpis.

The following Table contains all the species of *Symphoromyia* known to me as occuring in North America; types of the new species have been deposited in the U. S. National Museum. I am indebted to Mr. W. A. Snow, of the Kansas State University, for kindly examining and reporting upon the types of Dr. Williston's two species:

Females.

Knob of halteres and palpi yellow, abdomen shining except on the first segment, labella soft and broad . . johnsoni, sp. n.

Knob of halteres and palpi black.

Labella very slender, horny; a brown spot on thorax above each wing, abdomen opaque . . . cruenta, sp. n.

Labella broad and soft, no brown spots above wings, abdomen sub-shining pachyceras Will.

Males. Face hairy. Proboscis rigid, porrect; body velvet-black, two vittae and lateral margins of thorax gray pollinose cruenta, sp. n. Proboseis soft, retracted. Body gray pollinose, pile of palpi whitish . johnsoni, sp. n. . pachyceras Will Body not gray pollinose, pile of palpi black Face bare, proboscis soft, retracted, Pile of palpi, occiput and thorax largely whitish, body opaque, gray pollinose, proboscis five-sixths as long as the fera, sp. n. Pile of palpi, occiput and thorax largely black, proboscis less than one-half as long as the palpi. Body opaque, gray pollinose, pile of abdomen largely whitish trucis, sp. n. Body shining, nearly destitute of gray pollen, pile of abdomen largely black pullata, sp. n.

Symphoromyia modesta, sp. nov.

— Black, the following parts brownish-yellow: first antennal joint, palpi, proboscis except the labium, halteres, sixth and following abdominal segments, and the legs excepting apices of taisi; head and body opaque, gray pollinose, thorax marked with three blackish vittæ besides a triangular spot above each wing; pile of head and its members largely black, that on lower part of occiput yellowish-white; pile of thorax, scutellum, dorsum of abdomen posteriorly, and of the legs largely black, that on each end of pleura and on base and sides of abdomen largely yellowish-white; proboscis rigid, shorter than the palpi, labium retractile, very robust; hind coxæ slightly produced forward near the apex, middle coxæ destitute of a pencil of bristles; wings grayish hyaline, stigma pale brown. Length 7 mm.

California. Three specimens, in May.

Symphoromyia limata, sp. nov.

-- Head black, opaque, gray pollinose; antennæ, palpi and proboscis except the labium, brownish-yellow; pile of front, antennæ and palpi largely black, that of occiput yellowish-white. Thorax and scutellum black, opaque, gray pollinose, the pile largely black; thorax marked with three dark brown vittæ, the outer ones bordered internally with light gray; pile in front of halteres yellowish-white. Abdomen black, shining, not pollinose, the fifth and following segments brownish-yellow; pile of first segment and sides of the second yellowish-white, that on rest of abdomen largely black. Legs black, the underside and apex of femora, tibia and base of tarsi sometimes yellowish. Knob of halteres black; hind coxe slightly produced forward near the apex, middle coxe destitute of a pencil of bristles. Wings grayish-hyaline, stigma grayish-brown. Length 7 to 10 mm.

Southern California. Twenty females, in June.

Symphoromyia johnsoni, sp. nov.

of - Black, including the palpi and halteres, only the front and middle tibia

and bases of their metatarsi yellow; pile of antennæ, face and upper part of occiput largely black, that of palpi and lower part of occiput white. Proboseis retractile, one-half as long as the palpi. Body opaque, gray pollinose, thorax marked with three faint brownish vittæ; pile of thorax and scutellum mixed black and white, that on the pleura and abdomen white, on apex of abdomen largely black. Middle coxæ at their tips in front bearing a pencil of stiff black bristles, equalling the coxæ in length and curving backward at their tips; hind coxæ before their apices in front produced forward in the form of a rounded knob ope-half as long as the diameter of the coxa. Wings grayish hyaline, stigma brown.

 \mathbb{Q} — Differs from the \mathbb{S}^3 as follows; All tibiae and tarsi black, halteres yellow. Proboscis yellow, rigid, slightly longer than the palpi; labium robust, retractile; face bare; bristles on middle coxæ black and yellow, not forming pencils; abdomen shining except on the first segment. Length 6.5 to 7 mm.

Washington (O. B. Johnson) and British Columbia (H. F. Wickham). One male and seven females.

Respectfully dedicated to Prof. Johnson, who has succeeded in unearthing many interesting forms of Diptera in his locality.

Symphoromyia cruenta, sp. nov.

Black, including the palpi and halteres, the pile also black or largely so-Head and body opaque velvety, not gray pollinose excepting two vittee and the the lateral margins of the thorax. Face pilose; proboscis rigid, slender, one-half longer than the palpi, labella slender. Hind coxe only slightly produced near the apex in front, pile of middle coxe not forming pencils. Wings gray, lighter toward the apex, stigma brown.

 \mathbb{Q} — Differs from the $\overline{\mathcal{O}}$ as follows: Pile on sides of face, on palpi, occiput, abdomen and femora largely pale yellowish. Head and body brownish-gray pollinose, not velvety, thorax marked with three broad, brownish-black vittee besides a triangular spot above each wing, the outer vittee deeply emarginate near the front-end of this spot. Labium slender, elongate, horny. Length 6 to 8 mm.

Southern California. Sixteen males and twenty-eight females, in March and April. Both sexes were captured at the same time and place.

Symphoromyia trucis, sp. nov.

Black, including the palpi and knob of halteres, only the tibia sometimes yellowish. Pile of head and thorax largely black, that of the abdomen yellowish-white. Face bare; proboscis retractile, scarcely one-half as long as the palpi. Head and body opaque, gray pollinose, thorax marked with three lighter vittae. Hind coxæ produced near the apex in front in the form of a rounded knob; pile of middle coxæ short, not forming pencils. Wings grayish, stigma brown. Length 7 mm.

Southern California. Three males, in March and April.

Symphoromyia fera, sp. nov.

 \mathcal{J} — Differs from the above description of *trucis* as follows: Pile of palpi. occiput, thorax, scutellum and legs largely or wholly yellowish-white; proboscis five-sixths as long as the palpi. Length 8 mm.

Colorado. Two males.

The side pieces of the hypopygium are compressed, and terminate in a downwardly directed claw, before which they are broadly dilated in a lobe on the under side.

Symphoromyia pullata, sp. nov.

The Black, including the palpi and halteres. Pile also largely black, that in front of halteres and on sides of first abdominal segment sometimes largely whitish. Face bare; proboscis retractile, scarcely one-half as long as the palpi. Head and body sub-shining, not gray pollinose, thorax not vittate. Coxe as in trucis. Wings grayish-hyaline, slightly yellowish along the costa, stigma darkbrown. Length 7 mm.

New Hampshire (Mrs. A. T. Slosson) and Colorado. Two mates.

DESCRIPTION OF A NEW TREE-CRICKET.

By WM. BEUTENMÜLLER.

Œcanthus pini, sp. nov.

B—Head and antennæ testaceous; thorax somewhat paler, with a yellowish longitudinal stripe on each side above; eyes black; anterior pairs of legs testaceous; femora of posterior pair green, tibiæ testaceous; body beneath black with the sides yellowish-green; above blackish with a green stripe along the back; elytra transparent with the veins grass-green; hind wings slightly protruding beyond the elytra, veins also green. Length, from head to tip of body 12 mm.; Length of elytra 11 mm. Width 4.5 mm., Female somewhat paler than the male; tip of ovipositor black; the hind wings extend a little more beyond the elytra than in the male; size same.

Six males and four females. Windham Co., Connecticut.

Resembles *Œ. fasciatus*, but may be readily distinguished by the grass-green venation. The insect lives only on pine trees and usually on the high branches. Its song is a continuous, soft and metallic reeeeee, with numerous undulations. When many individuals are heard together, their stridulation sounds not unlike the jingling of sleighbells at a distance.